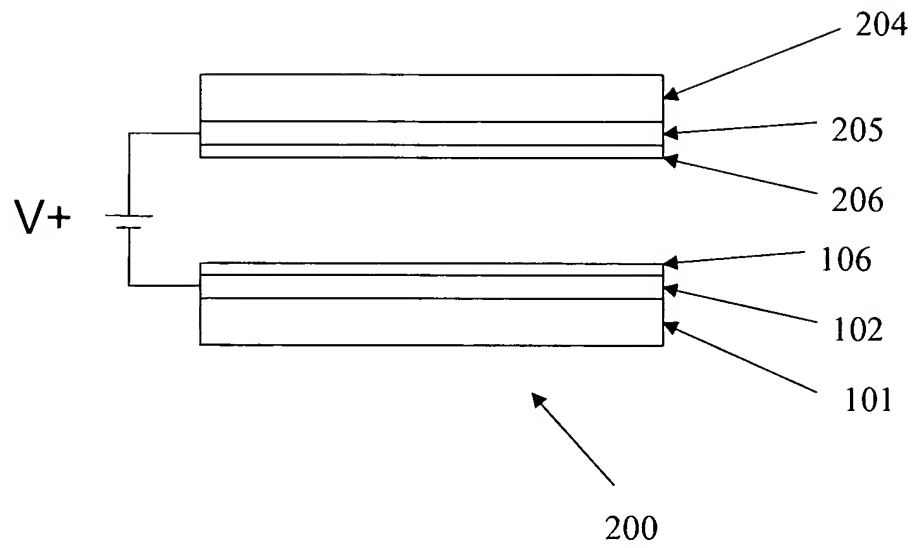
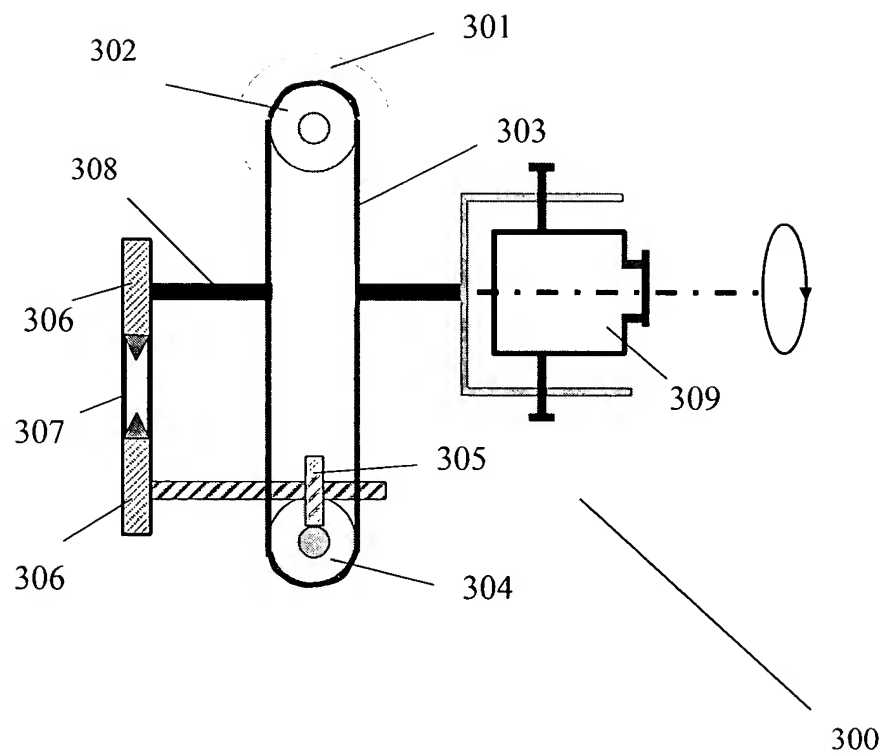


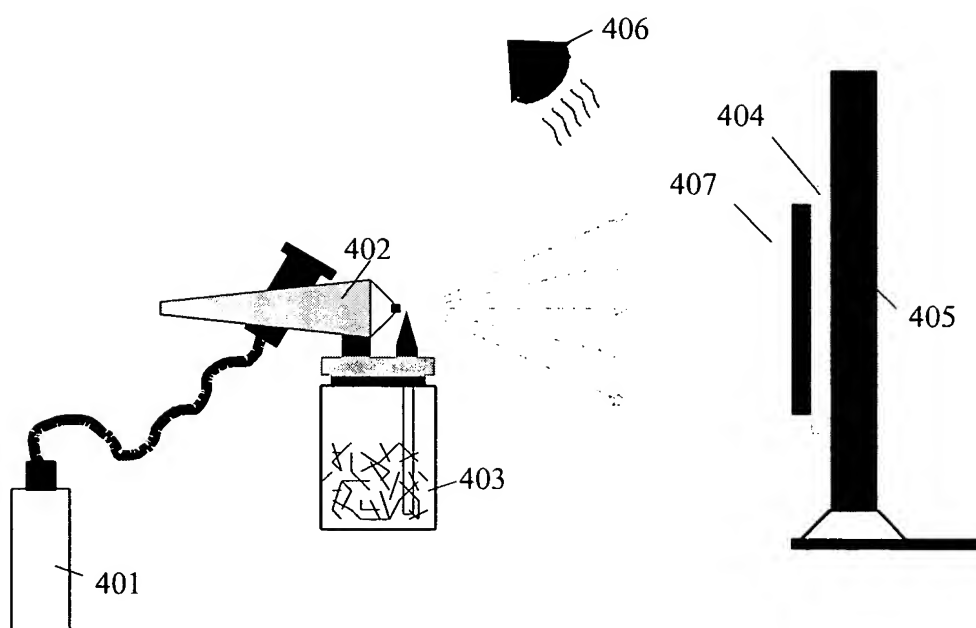
*Fig. 1*



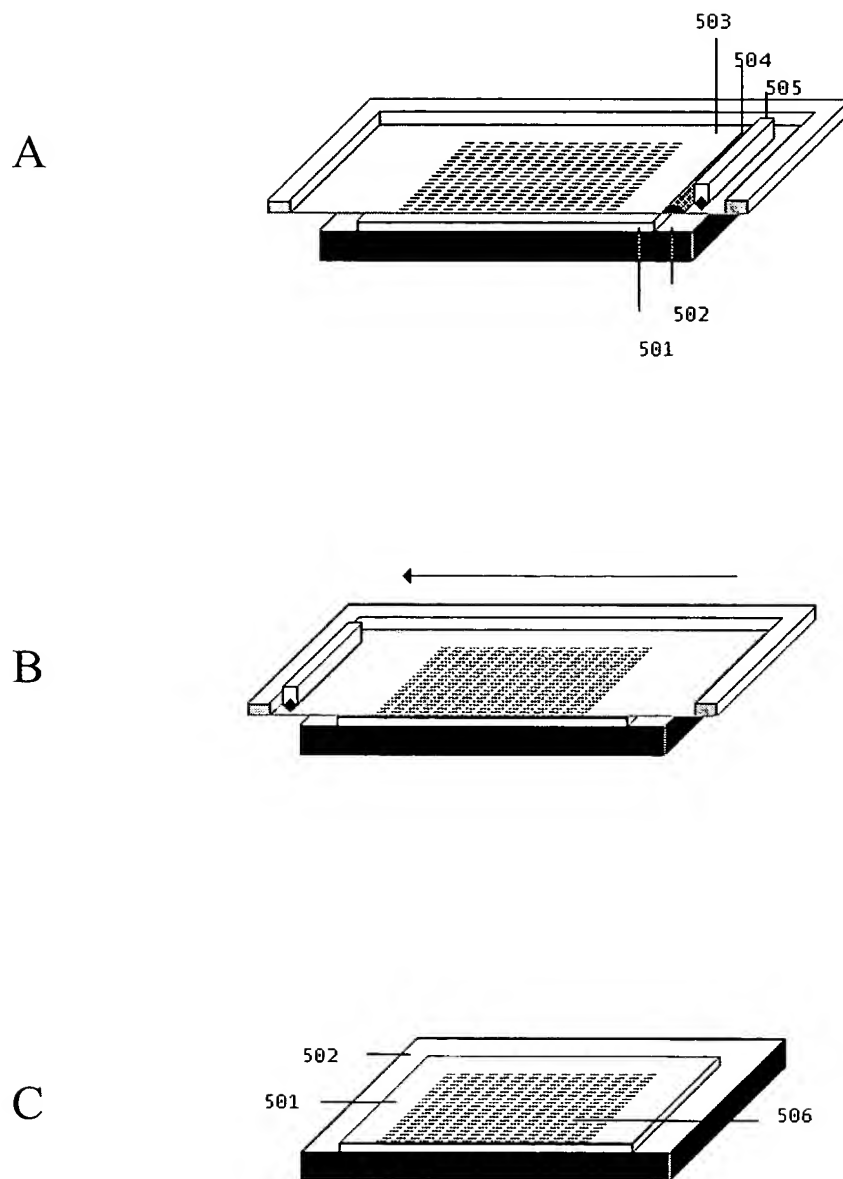
*Fig. 2*



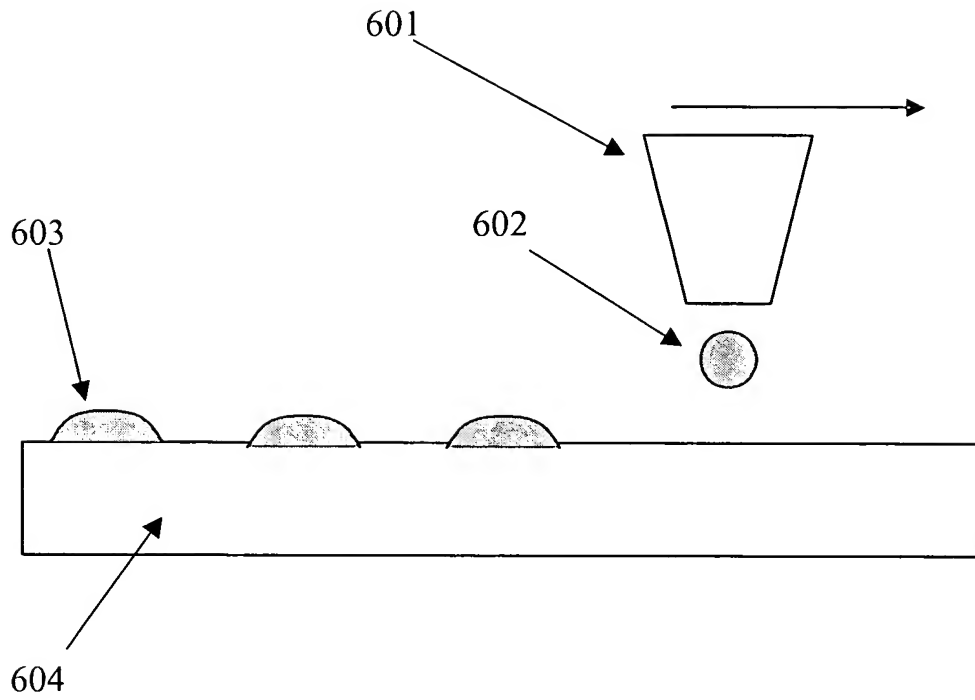
*Fig. 3*



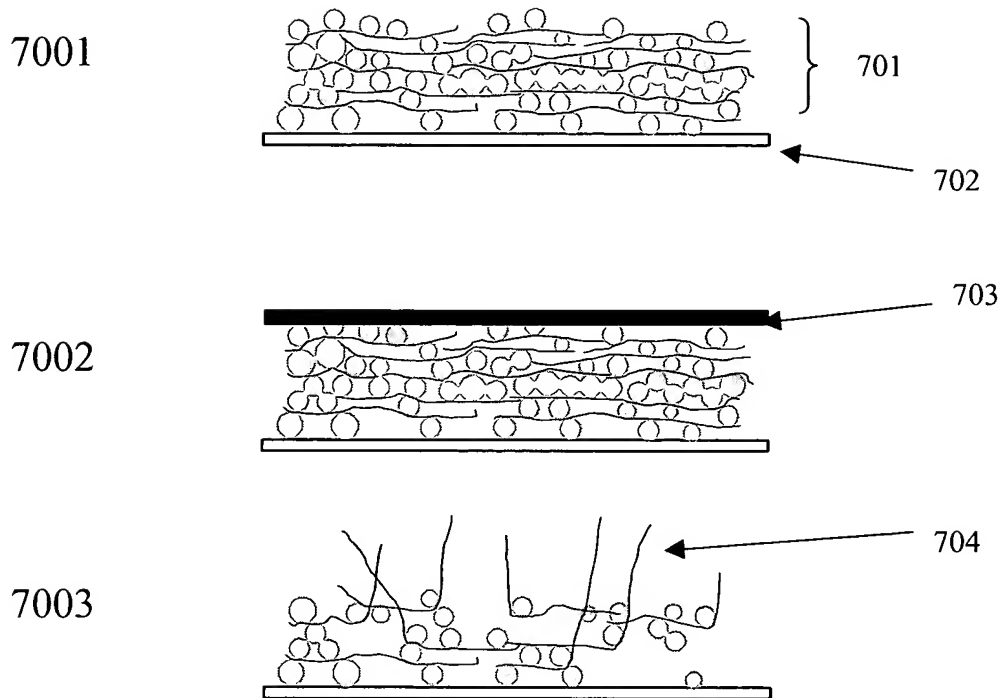
*Fig. 4*



*Fig. 5*

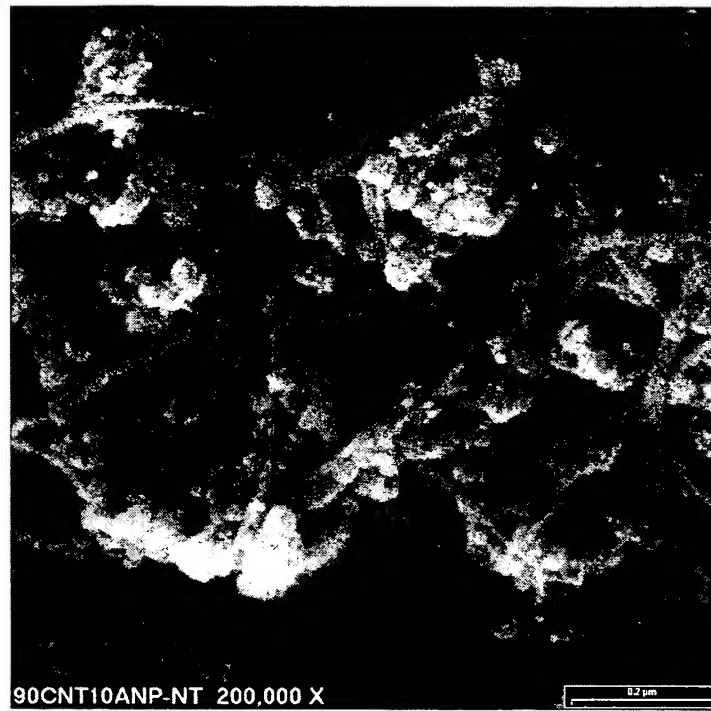


*Fig. 6*

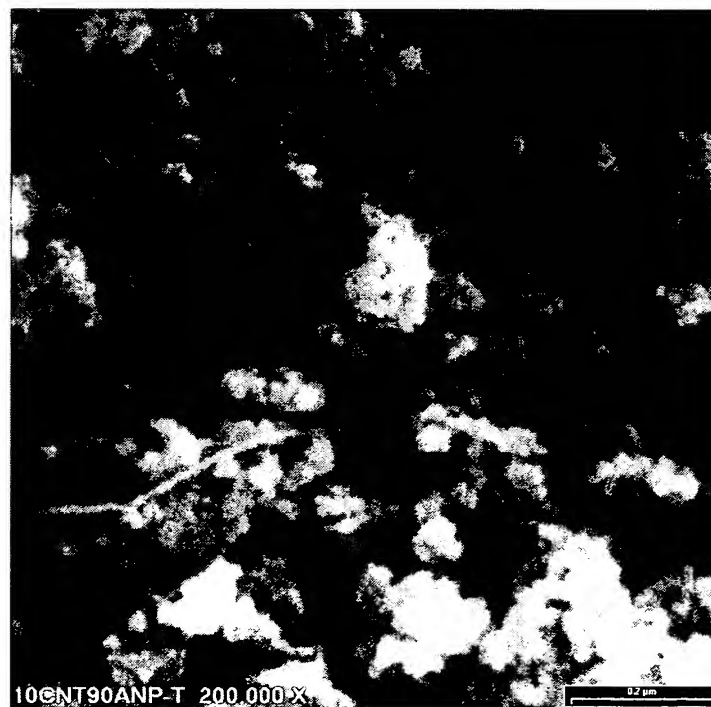


*Fig. 7*

A



B



*Fig. 8*



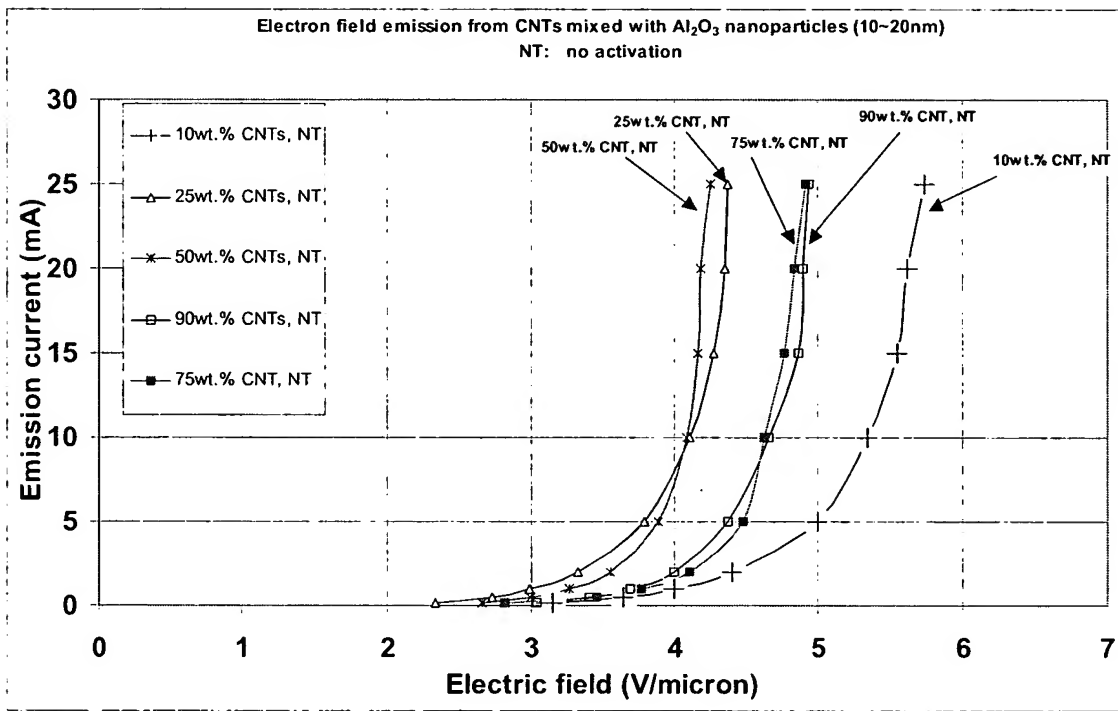
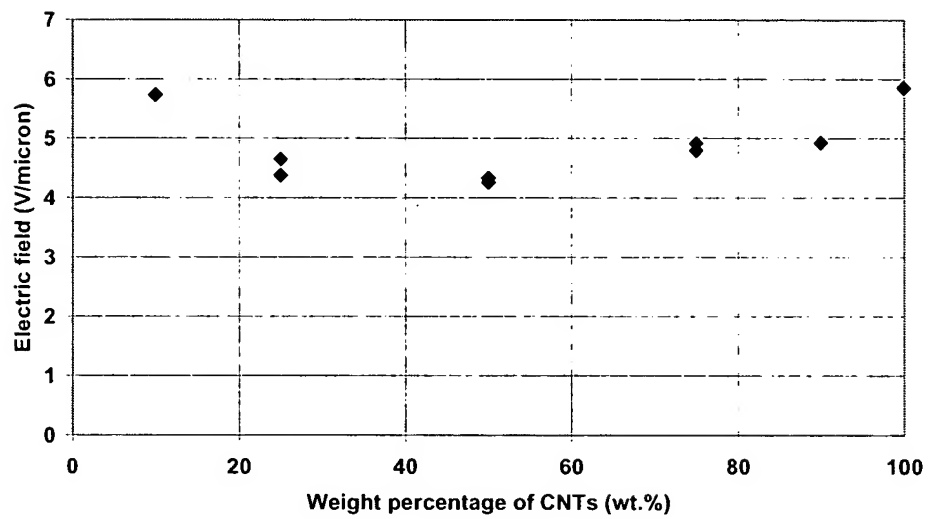


Fig. 9

Electric field vs CNTs concentration mixed with  $\text{Al}_2\text{O}_3$  nanoparticles at  
emission current of 25mA ( $6.25\text{mA}/\text{cm}^2$ ): No activation process



*Fig. 10*

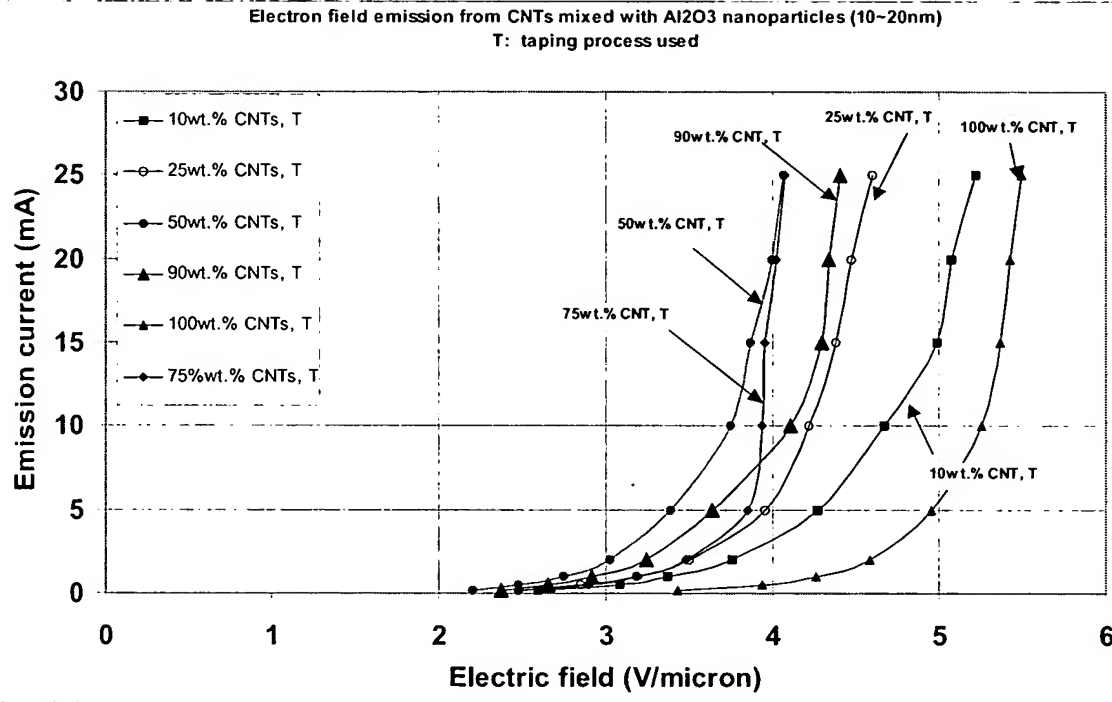
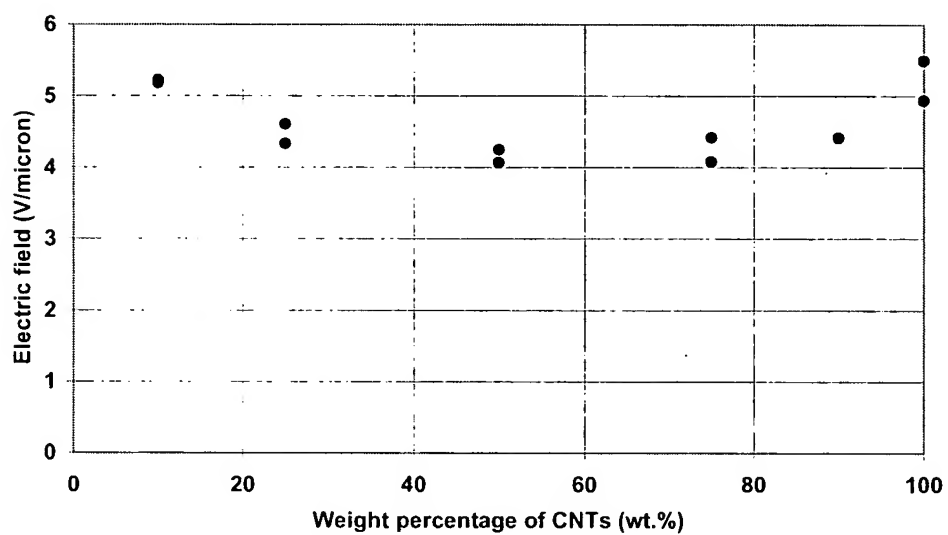
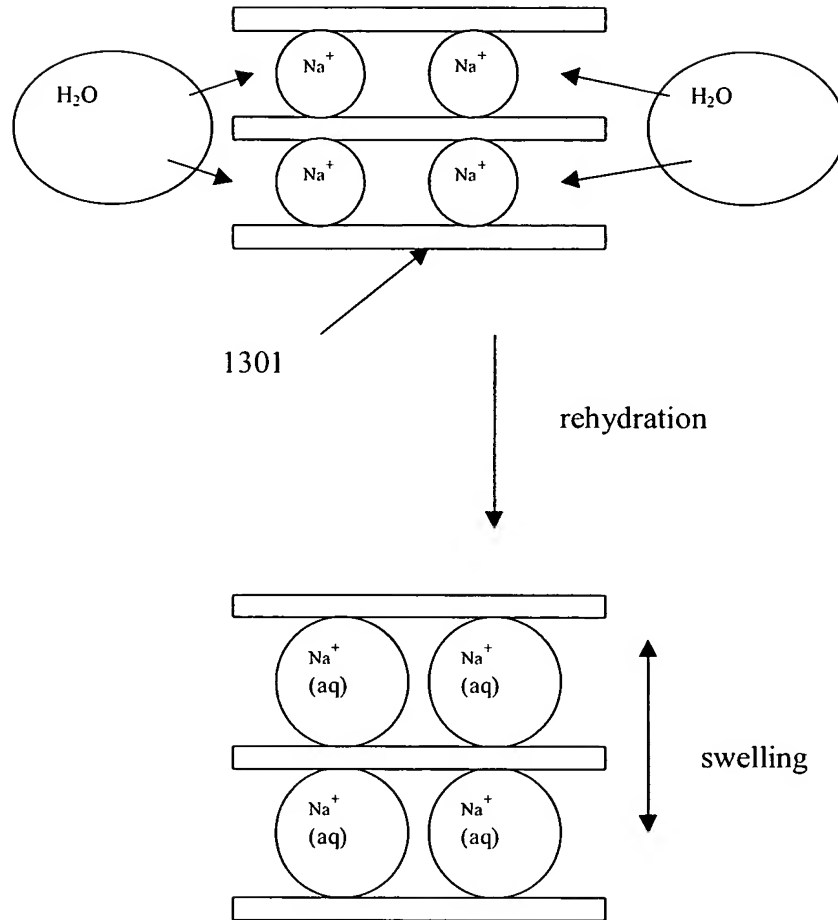


Fig. 11

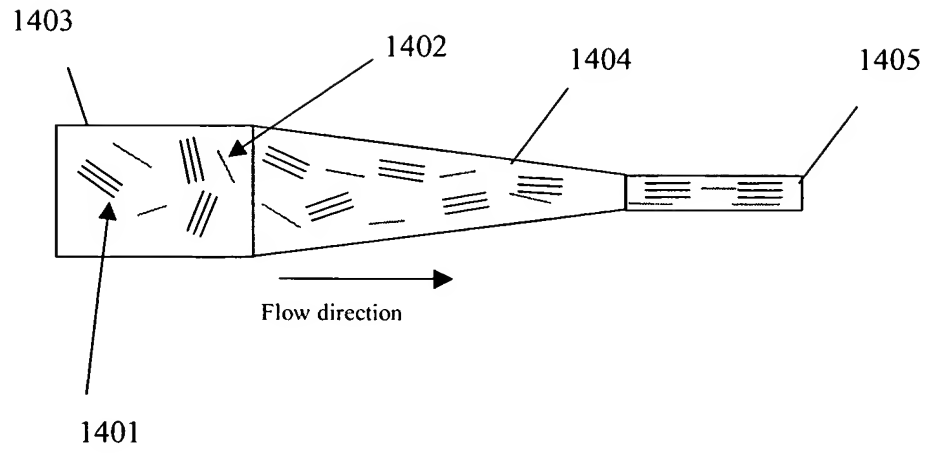
Electric field vs CNTs concentration mixed with  $\text{Al}_2\text{O}_3$  nanoparticles at  
emission current of 25mA ( $6.25\text{mA}/\text{cm}^2$ ): Activation process



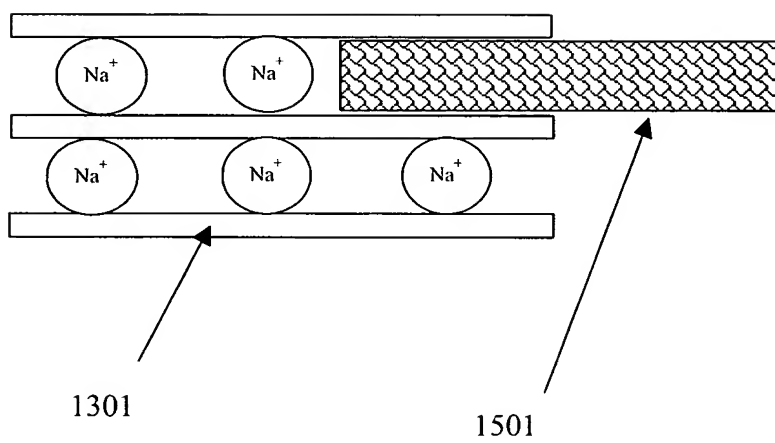
*Fig. 12*



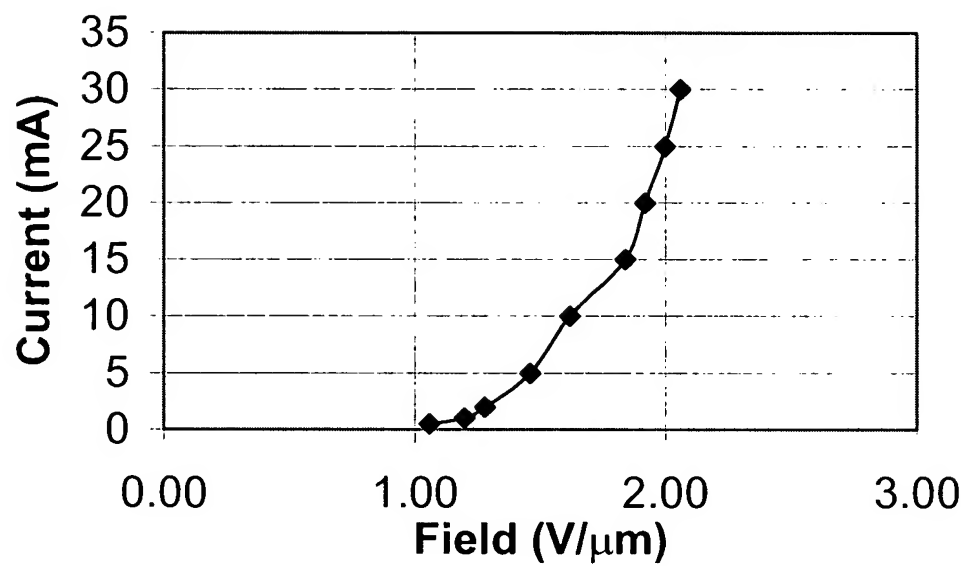
*Fig. 13*



*Fig. 14*

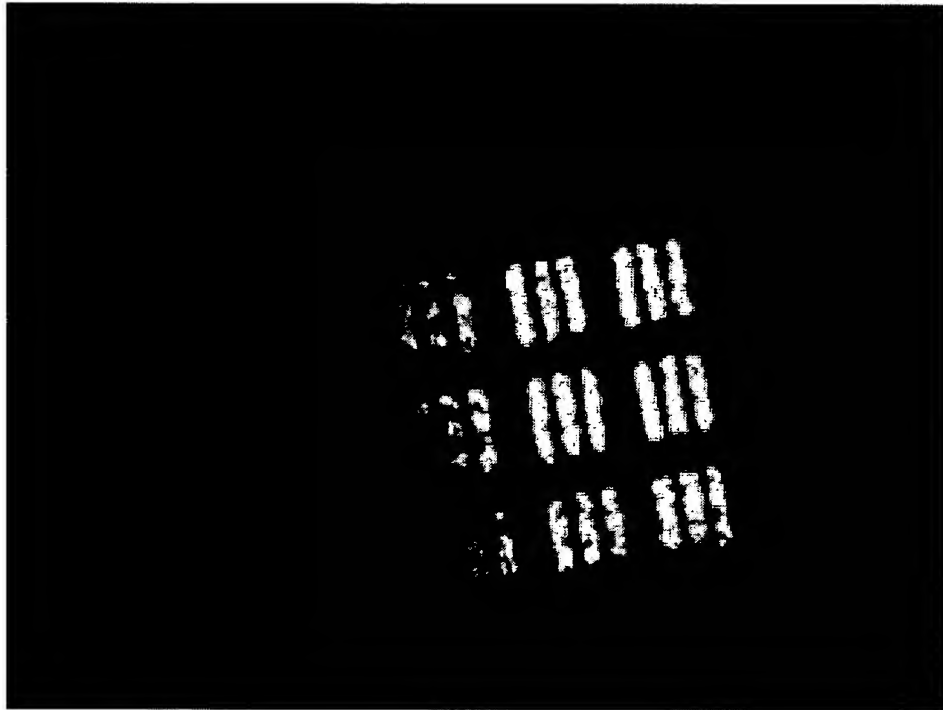


*Fig. 15*

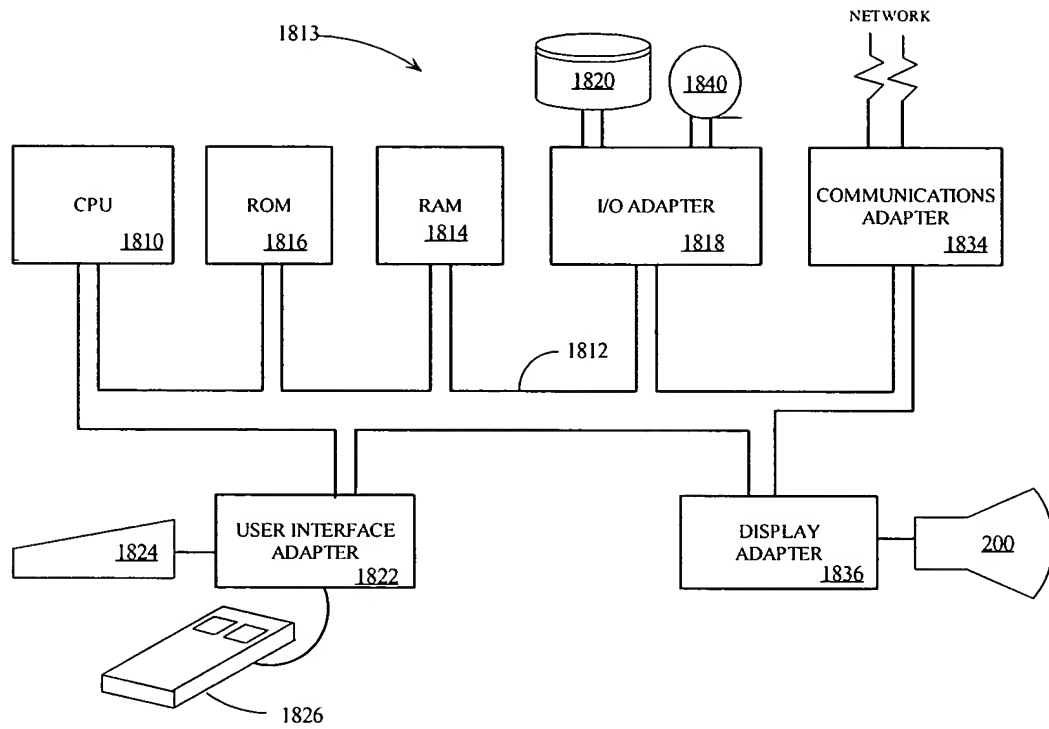


*Fig. 16*





*Fig. 17*



*Fig. 18*